UNITED
NATIONS

A

General Assembly

Distr.
GENERAL

A/50/418
8 September 1995

ORIGINAL: ENGLISH

Fiftieth session
Item 20 (d) of the provisional agenda*

STRENGTHENING OF THE COORDINATION OF HUMANITARIAN AND DISASTER RELIEF ASSISTANCE OF THE UNITED NATIONS, INCLUDING SPECIAL ECONOMIC ASSISTANCE: STRENGTHENING OF INTERNATIONAL COOPERATION AND COORDINATION OF EFFORTS TO STUDY, MITIGATE AND MINIMIZE THE CONSEQUENCES OF THE CHERNOBYL DISASTER

Report of the Secretary-General

CONTENTS

		Paragraphs	Page
I.	INTRODUCTION	1 - 4	3
II.	THE HUMANITARIAN TRAGEDY	5 - 41	4
	A. Internally displaced persons	5 - 14	4
	B. Extent of the human consequences	15 - 18	5
	C. Chernobyl recovery-workers: the "liquidators"	19 - 25	6
	D. Increases in morbidity	26 - 28	7
	E. Impact on children	29 - 31	8
	F. Incidence of thyroid cancer	32 - 35	8
	G. Incidence of stress-related illnesses	36 - 39	9
	H. Potential for increase in other cancers and diseases	40 - 41	9

* A/50/150.

95-27461 (E) 270995 280995

/...

CONTENTS (continued)

		Paragraphs	Page
III.	CHERNOBYL IN THE ECONOMIC AND SOCIAL CONTEXT	42 - 51	10
	A. Economic hardship	42 - 46	10
	B. Environmental contamination and its implications ...	47 - 51	10
IV.	INTERNATIONAL ASSISTANCE TO COUNTER THE DISASTER	52 - 65	11
V.	COORDINATION AND IMPLEMENTATION OF RESPONSE	66 - 79	14
VI.	CONCLUDING OBSERVATIONS	80 - 88	17
Annex.	International organizations, Member States and other organizations from which the United Nations received information on Chernobyl activities		19

I. INTRODUCTION

1. The name "Chernobyl" has become synonymous throughout the world with our fear of technological catastrophe: it symbolizes a penance for our unchecked desire for progress. Yet in the countries on to which the largest single quantity of radioactive material released descended, Chernobyl signifies the reality of a prolonged humanitarian disaster of major proportions. It means having endured nine-and-a-half consecutive years of contamination and contamination risks, of forced displacements and the persistent, albeit necessary, scrutiny of researchers, of conflicting reports and growing scepticism for the guidance of authorities and the ambivalence of the international community. Worse, however, it means having witnessed many of the youngest struck down by the consequences of radiation exposure, even so many years on.

2. Almost 400,000 people have been forced to leave their homes as a result of the nuclear power plant explosion on 26 April 1986. According to some estimates, at least 9 million people have been directly or indirectly affected by the Chernobyl accident. According to the Belarus Ministry of Health, the incidence of thyroid cancer, which has already shown marked increase, may rise still further and could peak between the years 2005-2010. An area the size of England, Wales and Northern Ireland combined - over 160,000 square kilometres - is estimated to have been contaminated by the disaster. The humanitarian trauma itself caused by Chernobyl is as frighteningly unnatural as it is difficult to quantify.

3. Despite other humanitarian disasters vying for the world's attention, the evidence that has been accumulated in the years since the accident attests overwhelmingly to the high priority that must continue to be given to addressing the consequences of the Chernobyl disaster, both within the United Nations system and by the international community in general.

4. The present report, which has been prepared pursuant to General Assembly resolution 48/206 of 21 December 1993, describes the extent of the humanitarian disaster facing the three most affected countries - Belarus, the Russian Federation and Ukraine, and examines the international response to date in eliminating the consequences of the accident. It also emphasizes the broader social and economic context in which this protracted humanitarian crisis has, and is continuing to be, played out. Clearly, the problems that stem directly from the Chernobyl accident cannot be viewed in isolation, even if this would be preferable from the standpoint of research. Indeed it may be seen in the present report that the three affected countries do not have the capacity to face up to the enormous costs of remedying the Chernobyl effects on their own, as their economies make the transition to market economies and as the effects of the disaster continue to manifest themselves. The report emphasizes the current and obvious plight of the affected population, and our moral obligation to support them.

II. THE HUMANITARIAN TRAGEDY

A. Internally displaced persons

5. The minimum estimate for the number of people forced to leave their homes because of radiation dangers following the Chernobyl explosion is almost 400,000: 150,000 in Belarus, 150,000 in Ukraine, 75,000 in the Russian Federation.

6. These internally displaced persons have suffered the hardships typical of other refugees and internally displaced persons: they were forced to flee their homes and established community structures at very short notice, unaware of where they were going or how they would end up and having to endure temporary shelter and extremely poor living conditions.

7. Since everything in their homes had been contaminated by radiation they were forced to abandon their homes with only the clothes on their back. Upon reaching their final destination, they were required to remove and burn the one set of clothes they had been allowed to bring.

8. Those who were displaced from the most contaminated area (the "Thirty Kilometre Zone") will never be allowed to return to their homes: caesium 137, the most significant long-term radionuclide contaminant emitted during the Chernobyl explosion, has a half-life of approximately 30 years. Even its practical effect on agricultural and forest lands is estimated to range between 8 and 20 years.

9. The uncertainty that internally displaced persons have about their future is compounded by general scientific uncertainty and lack of previous experience of the aftermath of a nuclear disaster in which low levels of radiation continue to be emitted. No comparable precedents exist through which scientific knowledge could have been gained and predictions made as to the likely effects of living in areas contaminated by Chernobyl. Those events which might have appeared to be an obvious comparison - the Hiroshima and Nagasaki bombs of the Second World War - do not, in fact, constitute useful evidence in this case. Those explosions resulted in a single large dose of radiation in a short period of time. The Chernobyl explosion released a total quantity of radioactivity magnitudes larger than the two atomic bombs combined, but of longer half-life and lower-level potency.

10. The International Atomic Energy Agency (IAEA) has reported that the levels of radiation in some of the areas originally affected by the Chernobyl explosion are now comparable with the levels of natural background radiation in many parts of Europe and the rest of the world. Other figures presented in the Journal of Radiation Research, based on a study of a control group of 80,000 people who survived Hiroshima and Nagasaki, suggest only 600 cases of cancer to be directly attributable to radiation.

11. The World Health Organization (WHO) maintains that only an exacting epidemiological study undertaken over several decades will be able to add scientific weight to the effects that Chernobyl will have on the incidence of most types of cancer. Consequently, there lacks a conclusive medical foundation

for asserting that certain types of cancers have increased as a direct result of radiation exposure from Chernobyl. (An important exception, however, is the incidence of thyroid cancer among children, which has already registered a marked increase and will be discussed in greater depth below.)

12. The reassuring statistics described above, which the scientific community has produced, have nevertheless done little to allay the deep-seated anxiety among people in the three most affected countries. By now they have been subjected to every variety of opinion and none is as convincing as the reality of their own experience. Many believe that they have been affected much more than current evidence suggests. These fears were no doubt heightened by the wall of silence that confronted citizens of the then Soviet Union in the immediate aftermath of the explosion and the consequent mistrust of authorities. And when the enemy is invisible, as is the case for radiation, these fears become all the more difficult to counter and weigh all the more heavily on the minds of the people. United Nations Educational, Scientific and Cultural Organization (UNESCO) studies point to a marked increase in stress-related illnesses and social dysfunction as a result of Chernobyl.

13. The stress associated with the uncertainty of living with radiation is exacerbated by the fact that many cancers have a long latency period. Consequently, the sentiment that the worst is yet to come is very prevalent. Understandably, people from the affected areas are reluctant to return to areas where they believe the radiation level is still elevated. There are, however, far greater ramifications in terms of the uncertainty about the latent and long-term effects of the accident, which prevent the thousands of displaced persons from returning to their homes and resuming a normal life. Social patterns and economic life have been severely disrupted, the state of health of these individuals appears permanently in doubt and the health facilities and diagnostic services available to them are meagre. As will be seen below, concurrent socio-economic changes in the countries are also a prominent compounding factor. They have meant that health problems that otherwise would be limited to the affected population have implications throughout the entire countries concerned.

14. The fact that there is as yet no conclusive scientific proof that certain of the diseases that have shown increases since the Chernobyl disaster have been caused by exposure to radiation has led to a reluctance among the international community to offer decisive and meaningful assistance. It is a situation that sharply demonstrates the danger of wholly subordinating an obvious and urgent moral obligation to scientific and statistical evidence.

B. Extent of the human consequences

15. The three affected countries officially estimate that overall at least 9 million people have in some way been affected by the Chernobyl disaster.

16. The Chernobyl Committee of the Belarusian Parliament estimates that 2.5 million people in its country have been affected. The United Nations Children's Fund (UNICEF) cites a figure of almost 2 million people: 130,000 people displaced from the contaminated zones in Belarus, and 1.8 million people

who still live in regions with a contamination of more than 5 curies per square kilometre.

17. The Ministry for Chernobyl of Ukraine estimates that in excess of 3.5 million people, including 800,000 children, have been affected. Some 3 to 5 million live in areas with varying degrees of contamination, while 3 million of these are claiming eligibility for free medicine, subsidized food and early retirement. Moreover, in Ukraine the effects of Chernobyl have spread as far south as the Black Sea owing to the seepage of radionuclides from the nuclear fuel still inside the Chernobyl sarcophagus into the water table and from there into the River Dnieper.

18. The Russian Federation estimates that 3 million people still live in the territories with a radiation level of more than 5 curies per square kilometre.

C. Chernobyl recovery-workers: the "liquidators"

19. Perhaps the group most at risk from its exposure to radiation following the explosion was the group involved in extinguishing the fire itself and undertaking immediate recovery work. They have become known as the "liquidators".

20. These men, drawn mainly from the then Soviet army, including civilian ranks, were employed to prevent radiation leaks from the destroyed reactor building, as well as to conduct clean-up operations in highly contaminated territories between 1986 and 1988. The men working inside the reactor building were required to spend no more than 90 seconds there, each transporting a block of cement or moving a lump of debris before departing as quickly as possible from the vicinity of the reactor. In the time since, these people have dispersed across the former Soviet Union. Much of the registering and tracing of their whereabouts is highly inaccurate, in part because of the break-up of the Soviet Union and subsequent socio-economic changes. There is even uncertainty as to how many participated in the liquidation efforts.

21. There are numerous claims that many have died as a result of their exposure. These claims have so far not been substantiated. According to WHO, however, medical monitoring of the liquidators within the three affected countries is already indicating growing morbidity (illness, disease, invalidity) and mortality rates among this group. A second phase of the WHO International Programme on the Health Effects of the Chernobyl Accident (IPHECA) will take a closer look at the registration and medical care of the liquidators. There are, however, few funds available to accomplish this.

22. WHO IPHECA figures suggest that there are some 800,000 liquidators in total: Ukraine estimates it has 200,000 liquidators in the country, the Russian Federation estimates at least 350,000, and Belarus some 130,000 liquidators, while the remainder have emigrated to other countries or have not yet been registered.

23. Health officials have reported unanimously that those people who were exposed to radiation in the first days after the explosion are at most risk to

their health. During that initial period, iodine-131, a dangerous radionuclide, was present in the atmosphere. This element is the major candidate in explaining the drastic increase in thyroid cancer as it is actively taken up by the thyroid gland. It has a half-life of only eight days, however, and thus would not have presented a danger thereafter. The main health concerns for the liquidators include cardiovascular and heart diseases, lung cancers, gastrointestinal inflammation, tumours and leukaemia. Stress and anxiety about whether they have been affected may also be a significant factor to account for the increase in disease in addition to the liquidators' exposure to radiation itself.

24. However, a fundamental problem is that the countries concerned have not been able to get all the liquidators to come forward and register. Consequently, a full picture is lacking of the health consequences and measures that Governments need to take.

25. None the less, it is estimated by a major non-governmental organization, the Chernobyl Union, that in the Russia Federation, 10 per cent of liquidators have become invalids (invalidity is here defined as the inability to hold full-time employment); and according to the Ministry of the Russian Federation for Civil Defence, Emergencies and Elimination of Consequences of Natural Disasters, 38 per cent of Russian liquidators suffer from some type of disease. The Chernobyl Union claims that 7,000 Russian liquidators have already died since the accident from various causes, including suicide.

D. Increases in morbidity

26. All studies report a growing incidence of morbidity in the three affected countries, some of which is attributed to Chernobyl: morbidity in the most affected regions appears to be higher than in the three affected countries as a whole.

27. The Belarusian Ministry of Health has reported that the overall morbidity rate in the Gomel region (the southern and most severely contaminated part of Belarus) is now 51 per cent. Significant increases in diseases registered in Gomel include lung and stomach cancers and problems with the urinary system.

28. According to Ukrainian sources, there are 1,521 diseases per 1,000 people in northern Ukraine, while the figure for Ukraine as a whole is 1,118 per 1,000. Cases of invalidity are 263 per 1,000 among the liquidators, while the rate in the country as a whole is 47 per 1,000 people: in the Chernobyl-affected areas the rate is six times as high. As a whole, according to Ukrainian Ministry of Health officials, the morbidity level is 30 per cent higher among people living in the contaminated regions, taking into account age and working and living conditions.

E. Impact on children

29. Children, especially those born between 1981 and 1987, are the most susceptible to developing Chernobyl-related diseases. Both children and embryos exhibit a particular sensitivity to the effects of radiation. Of children's diseases related to Chernobyl, thyroid cancers have seen the sharpest increase and are of the most serious concern. However, other diseases are also expected to affect children. According to UNICEF studies, they could include immunological deficiencies, anaemia, neurocirculatory problems, respiratory ailments, diseases of the stomach and intestinal tract, and defects of the cardiovascular system. Leukaemia has not so far shown any signs of increase.

30. In Ukraine, 2 million children out of a total child population of 12 million live in contaminated zones (5 curies and above per square kilometre), while 900,000 of these are still living in risk zones. In Belarus, 500,000 children aged 14 years and below live in the contaminated zones out of a total population 14 years and younger of 2.3 million. In the Russian Federation some 500,000 children live in the contaminated zones.

31. UNICEF has pointed out, however, that it is difficult to ascertain definitively that the children living in the contaminated areas have a worse state of health than children in other parts of Belarus, as children (and the rest of their families) from the most contaminated areas have been resettled to other parts of Belarus. Consequently, UNICEF has assessed global statistics for Belarus between 1990 and 1994 and has noted significant increases in many types of health disorders of the child population: disorders of the nervous system and sensory organs have increased by 43 per cent, blood circulation illnesses by 43 per cent, disorders of the digestive organs by 28 per cent, disorders of the genito-urinary system by 39 per cent, disorders of the bone, muscle and connective tissue system by 62 per cent, illnesses of the haemogenic (blood-producing) organs by 24 per cent, iron-deficiency anaemia by 10 per cent, endocrine system disorders by 8 per cent, diabetes by 28 per cent, congenital heart and circulatory diseases by 25 per cent and malignant tumours by 38 per cent since 1988.

F. Incidence of thyroid cancer

32. All three countries have experienced dramatic increases in the incidence of thyroid cancer in children and this increase has been particularly severe in Belarus.

33. While Belarus registered only 21 cases of surgery for thyroid cancer in children between 0-14 years of age between 1966 and 1985, according to Belarusian authorities, since 1986, 379 cases have been registered, according to the combined figures of Belarus and WHO. The growth in cases has continued to increase over recent years and is thus consistent with the cause being Chernobyl, there being a latency period before the cancer manifests itself. While between 1986 and 1989 there were 18 such operations, the number rose to 29 in 1990, 59 in 1991, 66 in 1992, 79 in 1993 and 82 in 1994, according to WHO. In the first half of 1995 there were 46 operations, according to Belarusian authorities.

34. While Ukraine registered only 25 cases of surgery for thyroid cancer in children aged between 0-14 years from 1981 and 1985, according to WHO 208 cases were registered between 1986 and 1994. When examined more closely, the incidence is again consistent with the cause being the Chernobyl accident: while between 1986 and 1989 there were 34 such operations, the number rose to 26 in 1990, 22 in 1991, 47 in 1992, 42 in 1993 and 37 in 1994, according to WHO.

35. While the Russian Federation registered a single case of child thyroid cancer between 1986 and 1989, WHO registered 23 cases between 1990 and 1994.

G. Incidence of stress-related illnesses

36. According to UNICEF, at the time of the accident, those most directly affected were not always informed of the possible effects or, in some cases, even of the occurrence of the accident. This lack of information or, in some cases, exposure to contradictory information, the uncertainty regarding present and future health effects and the implications for future generations and, in some cases, the stress of relocation have all had an effect on the psychological well-being of the populations affected by Chernobyl.

37. UNICEF has reported that investigations show that in Belarus, 62 per cent of people surveyed in the contaminated zones feel an elevated level of anxiety, while 75 per cent suffer from a degree of depression and 73 per cent experience severe uneasiness.

38. In Ukraine, UNESCO has noticed similar trends. In the contaminated zones the divorce rate is higher, there are more problems in relationships between parent and child, and there is more alcoholism compared with the levels in a control group from non-contaminated areas. Furthermore, the social system is increasingly disintegrating as the young try to leave.

39. According to UNESCO surveys, children who live in the contaminated zones in Ukraine are considered to have a life expectancy five to seven years lower than children surveyed from non-contaminated areas. Children from the contaminated territories have higher anxiety levels, they are concerned about their health and the health of their family, and are more introverted than their peers in non-contaminated areas. Interestingly, however, children in the contaminated zones are also higher achievers than others, as success in school is a means of leaving these zones.

H. Potential for increase in other cancers and diseases

40. Other areas of concern to health officials include oncological diseases, endocrine disorders, leukaemia, tuberculosis, diphtheria, cardiovascular and cardiological problems, lung and stomach cancers, haematology problems, bone marrow diseases, *in utero* complications and urinary tract problems. Although the increased instance of these diseases cannot be directly linked with Chernobyl, health officials point out that a general deterioration of the immune system will lead to an increase of such diseases.

41. The Belarusian Ministry of Health has noted a general degradation in the immunological condition of its citizens.

III. CHERNOBYL IN THE ECONOMIC AND SOCIAL CONTEXT

A. Economic hardship

42. All three affected countries have economies in transition from command to market systems, while the recovery and growth that certain other former communist countries have already experienced has not yet been achieved. The shrinkage of the absolute size of the gross domestic product (GDP) continued throughout 1994 in all three countries.

43. The Russian Federation's GDP was estimated by the Economic Commission for Europe (ECE) to have reduced by 16 per cent in 1994 from its 1993 level.

44. Ukraine's GDP fell by 25 per cent in 1994 compared to 1993, according to the United Nations Office at Kiev. That followed decreases of 14 per cent in 1993 compared with 1992, 17 per cent in 1992 compared with 1991, and 14 per cent in 1991 compared with 1990. However, it was observed that the decline in production halted late in 1994. An average salary in Ukraine in 1995 is estimated to be in the neighbourhood of $100 per month.

45. Belarus' total GDP in 1994 was $4.3 billion. That was a drop of 20 per cent compared with 1993, according to the United Nations Office at Minsk. Per capita GDP in 1994 was $421. An average salary in Belarus in 1995 was estimated to be $70 per month.

46. Faced with having to respond to the most urgent needs of displaced persons, remedying the health needs of liquidators, children and others affected by Chernobyl and addressing the environmental and economic impacts of the disaster at a time when their economies were shrinking, the three most affected countries have been forced to dedicate enormous portions of their budgets to addressing Chernobyl's consequences. Belarus has consistently had to spend 20 per cent of its national budget for just that purpose. Ukraine devotes 4 per cent of its annual budget to remedy the problems caused by Chernobyl, although it maintains it would require 20 per cent of the national budget to rectify the problems caused by the disaster. The Russian Federation devotes 1 per cent of its budget on Chernobyl-related affairs.

B. Environmental contamination and its implications

47. Huge tracts of formerly productive agricultural and forest land have been rendered uninhabitable and unusable for generations as a result of the Chernobyl disaster. The Chernobyl Committee of the Belarusian Parliament estimates that 30 per cent of the country's 208,000 square kilometres has been contaminated to various degrees. The Government of Ukraine estimates that 7 per cent of its 600,000 square kilometres, an area equivalent in size to the Netherlands, has been rendered unusable, and the Ukrainian Ministry for Chernobyl further estimates that 40 per cent of its forests are contaminated. The Russian

Federation estimates that 1.6 per cent of its European territory, or 57,650 square kilometres, is contaminated by radioactivity of more than 1 curie of caesium per square kilometre. The possibility of exploiting these lands productively has been severely curtailed and has had a substantial impact on the economy, in particular that of Belarus and Ukraine.

48. Since the economies of these countries are not expanding, there are few, if any, opportunities for gainful employment in the locations in which the people have resettled. Faced with such difficulties in maintaining a livelihood, many will do whatever is necessary to survive, even if it means spreading radionuclide pollution. Despite laws against such practices, people still living near the Chernobyl power plant repeatedly obtain contaminated wood - a major repository for radionuclides - for their own use or to sell as building material or firewood. It has also been reported that contaminated food has been exported from the polluted regions, processed elsewhere and reimported as clean food. Such activities have contributed to the continued spread of radionuclide contamination across the affected countries and have increased the exposure of the general population to the dangers of radioactivity.

49. The United Nations Environment Programme (UNEP) has reported that contaminated forests also constitute a significant secondary danger. In the hot summer period, particularly in Belarus and the Russian Federation, which possess large tracts of forest land, forest fires released further radionuclides into the atmosphere, spreading over vast areas of land.

50. Perhaps most disturbingly, however, in the face of economic hardship throughout the Commonwealth of Independent States (CIS), people from even poorer areas of the CIS have, according to UNESCO, moved back into the contaminated regions in order to receive the special state benefits on offer.

51. This all contributes to a widespread erosion of the social fabric in the affected countries. All that could preserve a degree of social cohesion in the affected countries, even in times of adversity, has steadily disintegrated. Studies by UNESCO and other organizations have shown how children no longer trust their parents or teachers, how the professional workforce has abandoned the contaminated regions and how the lack of adequate social and community services has exacerbated people's profound disorientation and has left them feeling cast adrift.

IV. INTERNATIONAL ASSISTANCE TO COUNTER THE DISASTER

52. This composite picture of economic hardship compounded by environmental devastation, and of social strife compounded by economic hardship, has drawn only limited sympathy from the international community. The desire for hard evidence before action has left the victims of the Chernobyl disaster waiting nearly 10 years, and much inaction has hidden behind what will always remain unquantifiable.

53. The response of the international community has been particularly inconsistent. Large disparities in the amount and kind of assistance offered by international organizations, bilaterally and by non-governmental organizations

have been recorded. A handful of international organizations and Member States have, however, been outstanding in providing assistance in their chosen or designated field of expertise. The United Nations is particularly grateful for those bilateral and non-governmental contributions which have constituted the backbone of the international Chernobyl effort to date. (A full list of those international organizations, Member States and non-governmental organizations which informed the Department of Humanitarian Affairs of the Secretariat of their activities related to Chernobyl is provided in the annex to the present report.)

54. There have been repeated expressions of concern in the affected countries, however, as to the imbalance between research activities and tangible financial and material assistance offered to them to assist them in their recovery. While research and testing to establish accurate scientific knowledge and assessment of the radiation effects of Chernobyl is the cornerstone of further work both in the scientific field and in other areas, it should not preclude the execution of practical projects to bring safety and relief assistance to the 400,000 displaced persons and countless others who have been affected by Chernobyl.

55. Activities undertaken fall primarily into four categories: health, scientific research, economic development and environmental aid. Many countries and international organizations have put great effort into studying the fallout from the Chernobyl disaster, mapping its effects and likely developments, creating action plans and mechanisms for the response to any future disaster, developing practical means to counteract the radiation effects on the food chain and natural environment, and so on. IAEA, the European Union (EU), the Food and Agriculture Organization of the United Nations (FAO) and WHO have been particularly active in this field, among others.

56. The diagnosis and treatment of diseases associated with the Chernobyl disaster and the creation of a public health infrastructure capable of tracking and combating the future development of Chernobyl-related health problems have been pursued to the extent that contributions have allowed. WHO and several notable donor countries, including Austria, Finland, Germany, Japan and Norway, as well as certain non-governmental organizations have been particularly active in addressing health concerns on the ground. There remain, however, substantial practical and material requirements before the health, social and psychological effects of Chernobyl can be effectively and widely addressed.

57. Despite generous grants from the Japanese, Finnish and the former Czechoslovak Governments, which allowed the pilot phase of the programme to be launched, resources for the WHO IPHECA are almost exhausted. The Programme's pilot phase came to a close in 1994 and there are almost no funds remaining to put into operation projects such as the recovery workers, dosimetry and thyroid projects. Yet these activities seek to help the people in the two most affected groups: the liquidators and children with thyroid cancer. The third project would allow health officials to predict more effectively the future impact and direction of Chernobyl-related diseases by reconstructing the nature of radiation doses received and their likely effects.

58. The continuation of the three principle projects within the IPHECA programme should be assured. Many of the hospitals in the three countries do

not have diagnostic and adequate treatment equipment for cancers and other diseases that may be associated with Chernobyl. Finally, medicines are expensive and in short supply. Belarus, for example, estimates that it has been able to obtain only 40 per cent of the medicines required to treat diseases related to Chernobyl.

59. One of the most respected and valued projects is the UNESCO community development centres project, which deals mainly with the social and psychological consequences of the catastrophe. This project is today expanding, both in the number of services rendered to the population and in the number of the centres operating in each country, with the goal of integrating Chernobyl-related assistance into the sustainable development strategies of the countries concerned. Most of the operating costs of the centres are, as originally intended, currently borne by the three countries concerned. UNESCO (with the support of the United Nations Trust Fund for Chernobyl, UNICEF, the Netherlands, and the non-governmental organizations, Diakonie and CARITAS) will provide development funds for the existing centres until June 1996.

60. Additional resources are, however, required to establish new centres, for the development of the new activities within the existing centres, and to assist the three most affected countries in integrating the experience gained into their long-term development plans. Furthermore, UNESCO is actively working on twinning schemes that will ensure the international contacts of the centres in the future.

61. If there were more money available from international donors, the main priorities, from the United Nations point of view, should be related to: (a) health; (b) improvement in giving information to the population on the consequences of the catastrophe; and (c) the creation of additional socio-psychological support at the community level and in the schools.

62. Given the fact that the 400,000 internally displaced persons are unlikely to return to their homes, every effort should also be made to ensure that there is adequate housing, schools, job opportunities and other infrastructural facilities in the towns to which they have moved. In this context, the social and economic area scheme launched and supported by UNESCO in the context of the United Nations Inter-Agency Task Force deserves adequate support for its full implementation. The planning phase of the project is currently funded by France, Denmark and EU and should be completed in 1996.

63. Environmental projects are also important but should not outweigh those addressing the more immediate and tangible human needs of maintaining health standards and treating diseases that arise as a result of radiation exposure. Environmental projects that bear careful study and perhaps execution are, among others, devising means of preventing further radionuclide seepage from the Chernobyl sarcophagus and into the water table, and from there into the River Dnieper and the Black Sea; devising means of reducing the dangers from and circulation of radioactive timber, reducing the level of radionuclide contamination in agricultural lands; and stabilizing radioactive waste. The UNESCO Energy, Development and the Environment project has been conceived to provide a blueprint for appropriate environmental education for the Chernobyl population.

64. IAEA has a consistent policy in the provision of assistance to the countries still dealing with the consequences of the Chernobyl accident. This policy is to concentrate the limited available resources to where they can best be used, such as in alleviating social and economic adversity, for example, in agricultural communities. Obstacles remain, however, in the effective use of international assistance, which should be addressed by the affected countries themselves. These include inappropriate compensation schemes and equivocal public information about the risk from radiation exposure. Addressing these obstacles would allow marked improvements in efficiency by allowing existing resources to be concentrated in areas of real need. Furthermore, focusing efforts at the national level in this manner would be in harmony with the agreed policy of the Quadripartite Committee for Coordination on Chernobyl to target international assistance and would in turn improve the prospects for further international assistance. IAEA would be willing to provide technical assistance and advice to the relevant authorities upon their taking an initiative of this kind.

65. Within the United Nations system, and in view of the extremely limited resources available to it, projects to regenerate economic activity should be given a lower priority. The route to regenerating economic activity cannot lie in using such scarce means to fund isolated projects or studies of an economic nature. Rather, the three affected countries themselves should address more fundamentally the issues that generate economic activity and growth.

V. COORDINATION AND IMPLEMENTATION OF RESPONSE

66. The main mechanism for international coordination is the Quadripartite Committee for Coordination on Chernobyl, which consists of the United Nations Under-Secretary-General for Humanitarian Affairs, acting in his capacity as United Nations Coordinator of International Cooperation on Chernobyl, and the ministers responsible for Chernobyl-related affairs in the three most affected States. The Committee meets each year to: (a) assess the progress of the international response to the Chernobyl disaster; (b) determine what still needs to be and could be done at the international level to address Chernobyl problems; and (c) coordinate action based on the above conclusions.

67. In recent years the annual Quadripartite Committee meeting has been expanded to include the participation of EU and the agencies of the United Nations system that are members of the United Nations Inter-Agency Task Force for Chernobyl; UNICEF; the United Nations Development Programme (UNDP); UNEP; ECE; the United Nations Centre for Human Settlements (Habitat); the International Labour Office (ILO); FAO; UNESCO; WHO; the World Meteorological Organization (WMO); the United Nations Industrial Development Organization (UNIDO); and IAEA. These organizations prepare and implement the various assistance and research projects of the United Nations system to combat the consequences of the Chernobyl accident.

68. The United Nations offices at Kiev, Minsk and Moscow have responsibilities for activities related to Chernobyl and participate in coordination with the national authorities and institutions. UNESCO has also established an office at Kiev to coordinate activities related to the community development centres and

to support implementation of its 30 other Chernobyl projects that are currently under way. Finally, under IPHECA, WHO has established a project office at Kiev for the International Thyroid Project.

69. EU has been particularly active in addressing the Chernobyl problem. Its activities are principally coordinated and implemented by four offices of the Commission of the European Communities: (a) the Directorate of G24 Nuclear Safety, Industry and the Environment, Civil Protection; (b) the Directorate of Nuclear Safety, both within Directorate-General XI (Environment, Nuclear Safety and Civil Protection); (c) the Directorate of Research and Technical Development, within Directorate-General XII (Science, Research and Development); and (d) the European Community Humanitarian Office.

70. Frequent contact in the past two years has facilitated the coordination and rationalization of projects initiated to remedy the consequences of Chernobyl. However, it has also frequently highlighted the fact that a shortage of funds continues to hinder efforts to resolve the problem adequately.

71. In November 1993, a meeting of the Quadripartite Committee was convened with the expanded participation of members of the Inter-Agency Task Force, representatives of the principal donor countries, EU and the World Bank. This was envisaged as an opportunity to rekindle donor interest and to exchange views on country policy with respect to Chernobyl and the implementation of the United Nations approach. Although monetary pledges were not made, support for a continuing role of the United Nations as a catalyst for international support was affirmed and a division of labour was outlined.

72. An expanded meeting of the Quadripartite Committee was held on 19 September 1994; the ministers from Belarus, the Russian Federation and Ukraine pointed out that international attention to the Chernobyl problem had become weaker, but the continued commitment of EU, IAEA, UNESCO, UNIDO and WHO was noted.

73. It was also noted at the meeting that important WHO projects were being jeopardized because of lack of financial contributions from donor countries. In general, it was stated that the financing of Chernobyl programmes in the Russian Federation, Ukraine and Belarus was inadequate; however, none of the States represented at the meeting or other donors pledged greater support. The three ministers appealed to the international community to provide further support to action on Chernobyl.

74. The Russian Federation proposed at the meeting of the Quadripartite Committee to set up a significant new initiative, an International Centre on Chernobyl. The activities of the Centre would include the collation of the large amount of research undertaken by different countries, international and regional organizations, and it would summarize the findings and create a unified programme of addressing the consequences of the Chernobyl accident. However, significant work still needs to be done on elaborating the mandate, structure, location, sources of financing and staffing for this body before a decision on its establishment can be taken.

75. In view of the approaching tenth anniversary of the Chernobyl accident on 26 April 1996, Belarus proposed a number of initiatives to mark that date. They included a symposium, Ten Years After Chernobyl, and the presentation of commemorative medals to the most prominent contributors of assistance to Chernobyl victims, to be held in April 1996 at United Nations Headquarters, or at the United Nations Office at Geneva. Belarus was willing to donate the cost of producing these medals and of hosting one of the meetings of the Inter-Agency Task Force on Chernobyl, to be chaired by the Secretary-General of the United Nations. Belarus also wanted the responsibilities of the United Nations offices in the three most affected countries to be widened to include Chernobyl-related activities in an official manner.

76. In January 1995 the ministers charged with remedying the effects of the Chernobyl disaster from the three republics most affected - Belarus, the Russian Federation and Ukraine - appealed to the Secretary-General of the United Nations to renew his efforts to bring international attention and resources to fight the consequences of Chernobyl. They noted that, as the tenth anniversary of Chernobyl approached, the incidence of disease caused by the disaster had not yet reached its peak.

77. The ministers recommended the following actions as a means of drawing attention to and mobilizing resources in favour of Chernobyl: (a) to declare 26 April (the anniversary of the disaster) a world day of mourning and remembrance of the victims of the nuclear disaster; (b) to convene an international conference sponsored by the United Nations on the consequences of the accident and their effect on the health of the world's population and environment, and on the expansion of international cooperation; (c) to appeal to potential donor countries to explore possibilities for increased cooperation on Chernobyl-related problems on both a multilateral and bilateral basis, and on the basis of business relations; and (d) to do everything possible to ensure that Chernobyl-related problems continued tc receive the attention of the United Nations and its specialized agencies, Governments and organizations of individual countries.

78. In late June and early July 1995 the United Nations Coordinator for International Cooperation on Chernobyl visited Minsk and the affected region of Gomel, in southern Belarus, where he saw first-hand the vast extent of the human tragedy and upheaval that the Chernobyl disaster had caused. Particularly impressive were the "dead" regions that had been evacuated in the wake of the explosion and in which there was no sign of human activity: the area had become nothing more than one vast laboratory for studying the effects of radiation on flora and fauna. Equally impressive was the underfinanced, overpopulated children's hospital in which almost all of the child thyroid patients in Belarus were treated. The children, many of whom have had their thyroid glands surgically removed, will be dependent on medication for the rest of their lives.

79. The United Nations Coordinator is currently preparing another expanded meeting of the Quadripartite Committee to take place in autumn 1995 in New York. The main topics of discussion will be determining which priority projects still needed to be executed and the means required for refocusing public interest and donor attention on Chernobyl, with special attention paid to ways of marking the tenth anniversary of Chernobyl on 26 April 1996.

VI. CONCLUDING OBSERVATIONS

80. Chernobyl remains a humanitarian tragedy of international magnitude that can only be addressed through a strong and consistent international response. While at least 400,000 people have been forced or have chosen to leave their homes because of radioactive contamination, health risks, both physical and mental, continue to affect great numbers of people.

81. Thyroid cancers have shown a marked increase in the three countries and their incidence can be unequivocally attributed to radiation from the Chernobyl catastrophe. Cardiovascular and heart diseases and gastrointestinal inflammations are also expected to increase in incidence as a result of sustained, elevated levels of stress and anxiety associated with the effects of the accident. General increases in morbidity, as well as increases in immunological deficiencies, anaemia, neurocirculatory problems, respiratory ailments, diseases of the stomach and intestinal tract and defects of the cardiovascular system, have already been noted.

82. Environmental effects have been equally catastrophic, with over than 10 per cent of the total area of Belarus, 7 per cent of Ukraine and 1.6 per cent of the European territory of the Russian Federation currently contaminated.

83. The response of the international community, however, has been inconsistent throughout. Certain countries have given generously and some international organizations have been very active, but the magnitude of the health problem still to be tackled is so great that more must be done. Public information campaigns, environmental education and the development of the UNESCO network of community centres, as well as contributing to the democratic mobilization of the population in the economic and social development of the affected zones, will be of key importance to the successful management of the catastrophe. Most importantly, Chernobyl-related assistance must be integrated into the sustainable development strategies of the three countries concerned.

84. A concerted effort needs to be made to alert the international community and in particular donors to the fact that Chernobyl is still a major humanitarian tragedy and that the magnitude of its effects will continue to grow over the next 10 years. The tenth anniversary of Chernobyl on 26 April 1996 offers an excellent opportunity to galvanize widespread media interest in the problem. Several international organizations, led by EU, IAEA and WHO, are already planning international conferences to mark the occasion. However, in view of the magnitude of the problem and lack of international donor response, more will need to be done to focus the attention of the world on the gravity of the problem. The expanded meeting of the Quadripartite Committee in autumn 1995 must consequently agree on concrete steps to take to mark the tenth anniversary in a manner not simply of remembrance, but to encourage generous and tangible assistance measures.

85. The resources available in the United Nations Trust Fund for Chernobyl have been exhausted and without further support from the international community, the United Nations efforts will simply cease, at a time when the years of study that have gone before have finally begun to reveal that the apprehensions expressed were valid and to confirm a devastation that is both real and long term. The

international community cannot remain indifferent to the plight of the Chernobyl victims and must provide assistance, both financial and in kind, to ensure that the consequences of this disaster are addressed.

86. In addressing the consequences of the disaster, donors must ensure that they target the most essential issues, as the benefits of any intervention will be lessened if the net is cast too wide. A limited but effective range of practical, health-related projects should receive first priority. Health-related projects should endeavour to isolate, treat and reduce illnesses associated with the Chernobyl accident, whether caused directly by radiation or by the profound stress and the anxiety that has characterized life over the past 10 years in the affected countries. This will involve epidemiology and diagnosis, the provision and maintenance of adequate equipment, medicine and treatment facilities, and programmes to address stress and its ramifications.

87. Economic projects should focus on creating a full legal framework to encourage and protect foreign investment, and in providing the necessary supporting infrastructure to ensure a lasting impact. An example of what can be achieved in the economic field in terms of regenerating economic activity given the right infrastructure and adequate support is the UNESCO economic and social area development at Gagarin.

88. The expanded Quadripartite Committee meeting to be held in New York will be an important opportunity for donors to be informed first-hand by the Chernobyl ministers of the three affected countries on the nature and extent of the problem still facing their countries. It will also provide an occasion for renewing support and making pledges or financial contributions, whether to the Trust Fund for Chernobyl, directly to implementing agencies of the system that are members of the Inter-Agency Task Force for Chernobyl, or indeed bilaterally, for the international community to combat decisively this severe and persistent humanitarian tragedy.

ANNEX

International organizations, Member States and other organizations from which the United Nations received information on Chernobyl activities

I. UNITED NATIONS SYSTEM

Department for Development Support and Management Services of the Secretariat

Economic Commission for Africa (ECA)

Economic Commission for Europe (ECE)

Economic Commission for Latin America and the Caribbean (ECLAC)

Economic and Social Commission for Asia and the Pacific (ESCAP)

Economic and Social Commission for Western Asia (ESCWA)

United Nations Children's Fund (UNICEF)

United Nations Conference on Trade and Development (UNCTAD)

United Nations Development Programme (UNDP)

United Nations Environment Programme (UNEP)

United Nations Population Fund (UNFPA)

World Food Programme (WFP)

International Labour Organization (ILO)

Food and Agriculture Organization of the United Nations (FAO)

United Nations Educational, Scientific and Cultural Organization (UNESCO)

World Health Organization (WHO)

International Monetary Fund (IMF)

World Meteorological Organization (WMO)

United Nations Industrial Development Organization (UNIDO)

International Atomic Energy Agency (IAEA)

II. OTHER INTERNATIONAL ORGANIZATIONS

European Union (EU)

International Federation of Red Cross and Red Crescent Societies (IFRC)

Organisation for Economic Cooperation and Development (OECD)

III. MEMBER STATES

Austria

Belarus

Colombia

Ecuador

Finland

Germany

Japan

Kenya

Lesotho

Russian Federation

Syrian Arab Republic

Ukraine

IV. OTHER ORGANIZATIONS

Chernobyl Help

The Sasakawa Memorial Health Foundation